

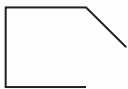
Attendance Problems.

Term	
1. _____ Side of a polygon.	A. Two nonadjacent angles formed by two intersecting lines B. The top number of a fraction, which tells how many parts of a whole are being considered C. A point that corresponds to one and only one number D. The intersection of two sides of a polygon E. One of the segments that form a polygon F. The bottom number of a fraction, which tells how many equal parts are in the whole
2. _____ Denominator	
3. _____ Numerator	
4. _____ Vertex of a polygon	
5. _____ Vertical angles.	

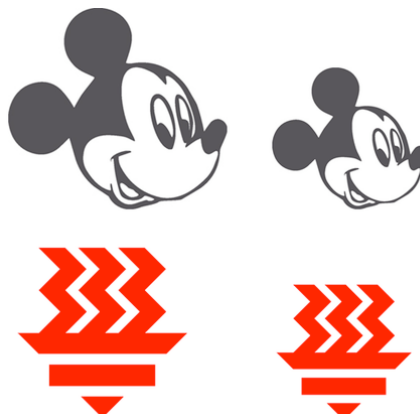
6. Simplify $\frac{56}{80}$

Determine whether each figure is a polygon. If so, name it by the number of sides.

7.

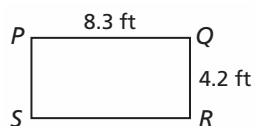


8.

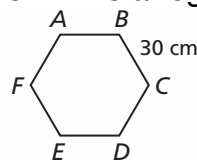


Find the perimeter of each figure.

9. PQRS is a rectangle.



10. ABCDEF is a regular hexagon.



- I can identify similar polygons.
- I can apply properties of similar polygons to solve problems.

Figures that are **similar** (\sim) have the same shape but not necessarily the same size.



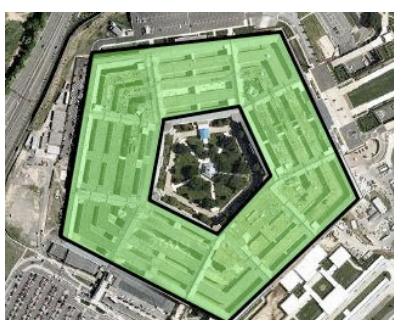
$\triangle 1$ is similar to $\triangle 2$ ($\triangle 1 \sim \triangle 2$).



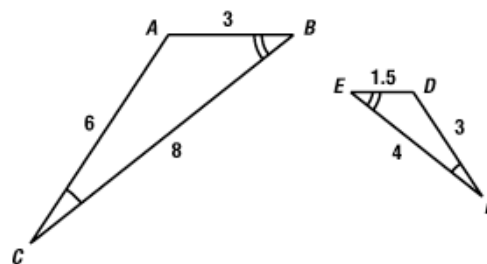
$\triangle 1$ is not similar to $\triangle 3$ ($\triangle 1 \not\sim \triangle 3$).

Similar Polygons

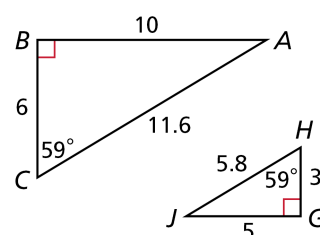
DEFINITION	DIAGRAM	STATEMENTS
Two polygons are similar polygons if and only if their corresponding angles are congruent and their corresponding side lengths are proportional.	<p>$ABCD \sim EFGH$</p>	$\angle A \cong \angle E$ $\angle B \cong \angle F$ $\angle C \cong \angle G$ $\angle D \cong \angle H$ $\frac{AB}{EF} = \frac{BC}{FG} = \frac{CD}{GH} = \frac{DA}{HE} = \frac{1}{2}$



Refer to example 1. Identify the pairs of congruent angles and corresponding sides.



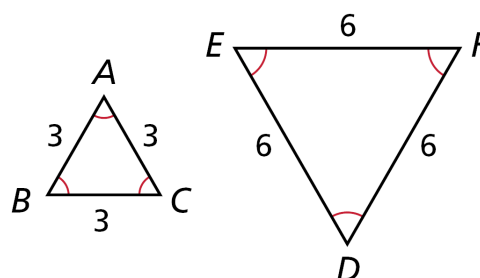
11. Guided Practice: Identify the pairs of congruent angles and corresponding sides:



A **similarity ratio** is the ratio of the lengths of the corresponding sides of two similar polygons.

• The similarity ratio of $\triangle ABC$ to $\triangle DEF$ is $\frac{3}{6}$, or $\frac{1}{2}$.

• The similarity ratio of $\triangle DEF$ to $\triangle ABC$ is $\frac{6}{3}$, or 2.



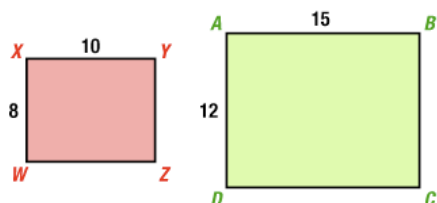
Writing Math

Writing a similarity statement is like writing a congruence statement—be sure to list corresponding vertices in the same order.

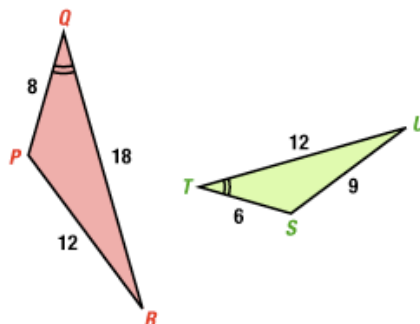


Refer to video example 2. Determine whether the polygons are similar. If so, write the similarity ratio and a similarity statement.

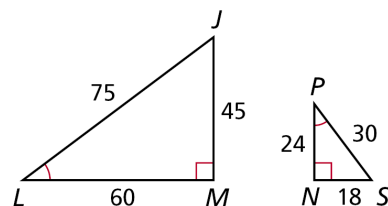
A.



B.



12. Guided Practice: Determine whether the polygons are similar. If so, write the similarity ratio and a similarity statement.



Helpful Hint

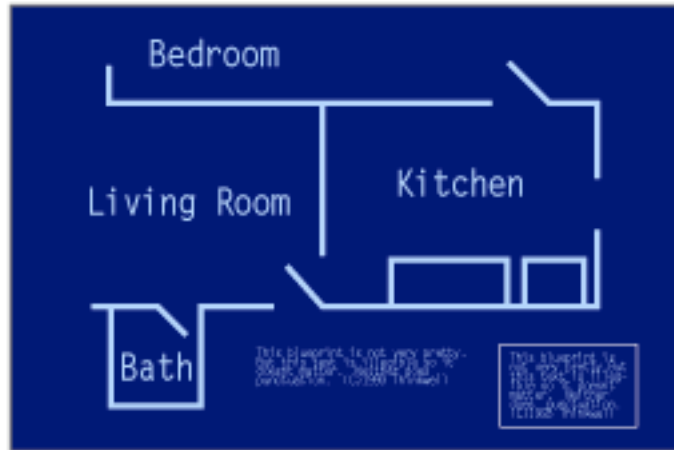
When you work with proportions, be sure the ratios compare corresponding measures.

Pre-AP Geometry 7.1 Study Guide: Ratios in Similar Polygons (pp 466-468)

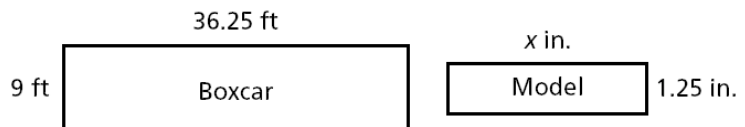
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Refer to video example 3.

The length of the kitchen in the blueprint is 5.5 inches and the width is 8.75 inches. The actual width of the kitchen is 12.25 feet. Find the actual length of the kitchen.



13. Guided Practice: A boxcar has the dimensions shown. A model of the boxcar is 1.25 in. wide. Find the length of the model to the nearest inch.



7-1 Assignment (p 469-470) 8, 10, 11, 14, 20, 25, 26.